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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,994	07/25/2001	Jean-Paul Cerveny	PVMT1	4697

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EXAMINER	
CHORBAJI, MONZER R	
ART UNIT	**PAPER NUMBER**
1744	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/889,994	CERVENY, JEAN-PAUL	
	Examiner	Art Unit	
	MONZER R. CHORBAJI	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This non-final action is in response to the amendment received on 10/11/2006

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 30-33, 45-46, 48-49, 55, 58-59, 61 and 63-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Thalacker (U.S.P.N. 3,834,408).

Regarding claim 30, Thalacker discloses a treating machine that is capable of sterilizing stoppers (col.1, lines 21-24). Thalacker further teaches that in one embodiment, the machine is part of a production line (col.1, lines 25-27) and further teaches the following: an inlet (figure 2:71) at a first end (unlabeled left wall in figure 2) of the machine, an opposing outlet (figure 2:75) at a second end (unlabeled right wall in figure 2) of the machine, a helical slideway path (figure 2:20) between the inlet and the outlet of the machine, the helical slideway is located between a sleeve (figure 2:10) and a stationary drum (figure 2:25) and the helical slideway is capable of moving stoppers that are slidingly located between the sleeve and the stationary drum (col.5, lines 30-34). As to the limitation of the sleeve being cylindrical, Thalacker teaches that even though the shape of the sleeve is rectangular; however, it is capable of being designed of any shape including cylindrical (col.2, lines 18-20).

Regarding claims 31-33, 45-46, 48-49, 55, 58-59 and 61, Thalacker teaches the following: the machine defines an imaginary longitudinal axis (an imaginary longitudinal axis along column 25 in figure 2) where the inlet (figure 2:71) and the outlet (figure 2:75) are positioned on opposite sides of the axis, the machine includes three sterilizing, rinsing and drying successive and coaxial sections (see the three zones illustrated in figure 1 where all in addition to the helical path share the same imaginary longitudinal axis along column 25 in figure 2) where the sections are coaxial with the longitudinal axis of the helical path, a rotating member (figure 10:45 and col.5, lines 31-34) that is capable of moving stoppers, a driving fluid (see nozzle labeled "steam out" in figure 2) that is capable of moving the stoppers within the helical path (figure 2:20), the fluid, for example, being a sterilizing liquid (cleaning solution in sump 51 in figure 2), the helical slideway is secured to and wound on an exterior wall of the stationary drum (figure 2:20 and 25), the sleeve is hollow (figure 2:10), stationary and surrounds the helical slideway and the stationary drum (figure 2: 10, 20 and 25), the helical slideway has a sole (figure 9:201), helical slideway is defined by a profiled separation (for example, unlabeled part of fixed track 220 between 25 and 220 where endless chain 35 is positioned in figure 8) that is positioned and welded into a helical groove provided on the stationary drum, the sole (figure 9:201) is a flexible metal strip wound between portions of the profiled separation so that it is held by tension at ends of the flexible metal strip resting on two shoulder of the profiled separation (for example, unlabeled part of fixed track 220 between 25 and 220 in figure 9 has two ends that are considered shoulders), a standard module having a plurality of turns (figure 2:20-1 through 20-8), a last of the turns has an

upper part (unlabeled upper part of turn 20-8 in figure 2) and the front turns are capable of performing sterilization (unlabeled front turn of unlabeled part where steam input is shown in figure 2), a sole in the front turns (figure 9:201), plurality of nozzles are oriented at a driving angle (for example, see inclined nozzle labeled steam-in in figure 2), one of the orifices is positioned in a bottom part of each of the turns (nozzle 56 beneath part 20-3 in figure 2) on a vertical plane of symmetry, a cylindrical coaxial with the sleeve (figure 11:45), the sleeve has oblong-shaped discharge holes (for example, tip of nozzle 56 in figure 2 is supposed to be round yet it is elongated inwardly) and the device has an imaginary vertical longitudinal axis (an imaginary longitudinal axis along column 25 in figure 2).

Regarding claims 63-64, see MPEP 2115 where material or articles worked upon by the device does not limit the apparatus claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 34-44, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thalacker (U.S.P.N. 3,834,408) as applied to claims 33, 55, 30 and further in view of Nagamatsu et al (U.S.P.N. 3,945,796).

Regarding claims 34, 38 and 62, Thalacker teaches the following: a hollow sleeve (figure 2:10), helical slideway (figure 2:20 and 25) is secured to the stationary drum (figure 2:25) and is wound around an exterior wall of the stationary drum, the helical slideway (figure 2:20) has a U-shaped profile (figure 6:20, 21 and 25) that is open toward the hollow sleeve and depending on design specifications is capable of having a height shorter than a height associated with the stoppers, the use of a rotating member (col.5, lines 31-34), the sterilizing liquid is collected in a lower part of the stationary drum (figure 2:52) within a suction cavity (figure 2:51) that is offset with respect to a vertical plane of the symmetry of the stationary drum, and the machine has a longitudinal axis (an imaginary longitudinal axis along column 25 in figure 2). However, Thalacker fails to teach using a rotating hollow sleeve and horizontal operation of his device. Nagamatsu's stoppers sterilization machine shown in figure 1 uses a rotating cylindrical drum (figure 1:41 and 43) that has a top portion (figure 2:41a) and sidewall portion (figure 2:41b) having holes therein (figure 2:42) such that rotation of the drum in combination with the holes (col.5, lines 48-53 and col.7, lines 30-31) results in even heated-air treatment. Also, Nagamatsu operates his machine in the horizontal direction as shown in figure 11. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to additionally place

Nagamatsu's rotating drum between Thalacker's stationary hollow sleeve and the helical slideway so that items being air dried in the drying zone of Thalacker's device (col.4, lines 48-50) are evenly dried (Nagamatsu, col.7, lines 30-31) and to modify Thalacker's device to operate in a horizontal setting as taught by Nagamatsu so that it is possible to use vaned wheel (Nagamatsu, col.8, lines 4-6 and figure 11:10') for feeding one item at a time.

Regarding claims 35-37, 39-44 and 60, Thalacker teaches the following: helical slideway (figure 2:20) has a bottom in the sterilizing section (unlabeled bottom of 20-5 where nozzle for inputting steam) that includes a plurality of holes (unlabeled holes through which nozzles 56 or 60 are placed as shown in figure 2) for receiving a plurality of nozzles and the nozzles are situated inside the stationary drum (the drying zone in figure1 and figure 2:25), plurality of nozzles are situated in an upper part of the stationary drum (figure 2:25 and the steam inlet nozzle), stationary drum has a defined radius (figure 10:25) and the plurality of holes (figure 2:25 and the steam inlets and outlet nozzles) are oriented in a direction that is inclined to the radius of the stationary drum, a barrier (walls of boil tank 52 in figure 2) for preventing the sterilizing liquid from running over ends of the stationary drum, a pipe (unlabeled pipe exiting sump 51 in figure 1) for drawing the sterilizing liquid, a filter (figure 1:54), a heater (figure 1:57), recycling the sterilizing liquid (see arrows in figure 1), transitions between the sections are provided by arrangements of the helical slideway (col.4, lines 36-45), sterilizing liquid is injected into a pressure-equalizing chamber (figure 2:71) by a nozzle (figure 2:64), pressure-equalizing chamber (figure 2:62) is formed by a wall that is parallel to a

wall defined by the stationary drum (walls of chamber 62 are parallel with walls of drum 25 in figure 2), the interior face of the rotating member has a groove (unlabeled grooves in 201 in figure 9) that is capable of slidingly receiving a central cap associated with the stoppers and the module further includes an air inlet (col.4, lines 48-51 and steam in nozzle in figure 2) located inside the module that is capable of distributing air to the various shown nozzles.

6. Claims 50-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thalacker (U.S.P.N. 3,834,408) as applied to claim 45 and further in view of Kontos (U.S.P.N. 4,399,828).

Regarding claims 50-52, Thalacker fails to teach that his device is made up of plurality of identical modules such that each module has a hopper at its outlet; however, Kontos treats various types of work pieces (col.1, lines 6-9) through three identical modules (figure 1:A, B and C) connected to each other in series and are closed at opposing ends (figure 1:AT and CT) so that different simultaneous treatments are accomplished. Kontos also shows a hopper (figure 1:T) at the outlet of the third module (figure 1:C); yet depending on the manner of operating the assembly, Kontos device is capable of treating work pieces where at outlet of each module a hopper is positioned for accepting treated or damaged work pieces. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to serially connects three Thalacker's modules as taught by Kontos so that different simultaneous treatments are accomplished (Kontos, col.3, lines 60-65) resulting in an increased number of treated work pieces.

Regarding claim 53, Thalacker teaches a single module (figure 2) having a helical slideway (figure 2:20) secured and wound on an exterior wall of the stationary drum (figure 2:25) and the sleeve is hollow and stationary (figure 2:10) and surrounds both the helical slideway and the stationary drum; however, Thalacker fails to teach that the sleeve includes a slit and the use of multiple modules. Kontos treats various types of work pieces (col.1, lines 6-9) through three identical modules (figure 1:A, B and C) connected to each other in series and are closed at opposing ends (figure 1:AT and CT) so that different simultaneous treatments are accomplished. Kontos also discloses that the walls of the cylindrical drums (figure 1:10) are perforated (figure 1:14 and col.1, lines 65-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to serially connects three Thalacker's modules as taught by Kontos so that different simultaneous treatments are accomplished (Kontos, col.3, lines 60-65) resulting in an increased number of treated work pieces and to place multiple slits in the walls of Thalacker's sleeve so that fluids freely enters into and out of the device (Kontos, col.3, lines 20-23).

Regarding claim 54, Thalacker teaches a single module (figure 2) having an inlet tube (figure 1:60) for recycling the driving fluid (see recycling arrows in figure 1); however, Thalacker fails to teach that the sleeve includes a slit. Kontos treats various types of work pieces (col.1, lines 6-9) through three identical modules (figure 1:A, B and C) such that the walls of the cylindrical drums (figure 1:10) are perforated (figure 1:14 and col.1, lines 65-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to serially connects three Thalacker's

modules as taught by Kontos so that different simultaneous treatments are accomplished (Kontos, col.3, lines 60-65) resulting in an increased number of treated work pieces and to place multiple slits in the walls of Thalacker's sleeve so that fluids freely enters into and out of the device (Kontos, col.3, lines 20-23).

7. Claims 47 and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thalacker (U.S.P.N. 3,834,408) in view of Kontos (U.S.P.N. 4,399,828) as applied to claim 50 and further in view of Minbiole, Jr. et al (U.S.P.N. 3,751,297).

Regarding claims 47 and 56, Thalacker teaches the following: a helical slideway (figure 2:20) secured to and wound on an exterior wall of the stationary drum (figure 2:25), the sleeve (figure 2:10) is hollow and surrounds both the helical slideway and the stationary drum and the helical slideway has a moving sole (figure 9:201 and col.5, lines 31-34) in the front turns of the system. Thalacker fails to teach that the sole has a plurality of openings having nozzles positioned therein; however, Minbiole treats work pieces by moving them through transfer conduits (figure 4:146) such that movement is effected by connecting nozzles to the inner surfaces (sole) of the transfer conduits (figure 4:148 and col.9, lines 1-9). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place perforations containing nozzles in Thalacker's sole as taught by Minbiole so that movement of work pieces on Thalacker's moving sole are additionally accelerated (Minbiole, col.9, lines 1-9) thereby production of treated items is further increased.

Regarding claim 57, Thalacker provides in a bottom part of each of the turns (for example, nozzles 56 in turn 20-3 in figure 2) orifices on a vertical plane of symmetry for the device (an imaginary longitudinal axis along column 25 in figure 2).

Response to Arguments

8. Applicant's arguments with respect to claims 30-64 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. White (U.S.P.N. 3,292,775), White (U.S.P.N. 3,216,431) and Weet (U.S.P.N. 4,022,638) all disclose articles cleaning machines that include a helical slide way defined between a cylindrical sleeve and a stationary drum.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 9:00-5:30.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLADYS J. CORCORAN can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRC

GLADYS JP CORCORAN
SUPERVISORY PATENT EXAMINER